

ABSTRACT

A radiation apparatus (10) includes a beam source (12) generating radiation beam toward a target (11). A projection  
5 detector (17) detects the images of the target (11) formed by the radiation beam. In a radiation treatment session using the apparatus (10), the beam source (12) first generates a low intensity beam. The projection detector (17) generates image  
10 signals of a patient under the treatment. A control module (18) in the apparatus (10) develops a treatment plan in accordance with a treatment prescription and the image signals. Subsequently, the beam source (12) generates a treatment beam according to the treatment plan. The  
15 projection detector (17) can generate further image signals formed by the treatment beam to verify the treatment process.